

**WHAT IS CLAIMED IS:**

1. An information-recording apparatus for recording in an information-recording medium, digital information on left and right frames for three-dimensional display, the digital information being acquired by shooting an object from the left and right at the same time, said apparatus comprising:

a recorder for recording in the information recording medium said digital information for three-dimensional display with said digital information being alternately arranged at the left and right frames at a speed which is "n" times as high as a speed for recording digital information on one frame for normal display in units of an error correction configuration and an information recording format, which correspond to the digital information on one frame for the normal display.

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2. The information-recording apparatus as claimed in claim 1, wherein said recorder modulates a servo control signal serving as a reference when said digital information for three-dimensional display is reproduced, and records the modulated signal in said information recording medium.

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3. The information-recording apparatus as claimed in claim 2, wherein said recorder modulates a waveform duty of said servo control signal according to the left and right frames of said digital information for three-dimensional display.

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4. An information-recording method for recording in an information recording medium, said digital information on left and

right frames for three-dimensional display, the digital information being acquired by shooting an object from the left and right at the same time, said recording method comprising the step of:

recording in the information-recording medium said digital  
5 information for three-dimensional display with said digital information being alternately arranged at the left and right frames at a speed which is "n" times as high as a speed for recording digital information on one frame for normal display in units of an error correction configuration and an information recording format, which correspond  
10 to the digital information on one frame for the normal display.

5. The information-recording method as claimed in claim 4, wherein a servo control signal serving as a reference during reproduction of said digital information for three-dimensional display is modulated,  
15 and the modulated signal is recorded in said information-recording medium.

6. The information-recording method as claimed in claim 5, wherein a waveform duty of said servo control signal is modulated  
20 according to the left and right frames of said digital information for three-dimensional display.

7. An information-reproducing apparatus for reproducing from an information-recording medium, digital information on left and right  
25 frames for three-dimensional display, the digital information being acquired by shooting an object from the left and right at the same time, said apparatus comprising:

a reproducer for reproducing digital information on left and

right frames for three-dimensional display by reading the digital information on left and right frames alternately out of said information-recording medium at a speed which is "n" times as high as a speed of reproducing digital information on one frame for normal  
5 display in units of an error correction configuration and an information recording format, which correspond to the digital information on one frame for the normal display.

8. The information-reproducing apparatus as claimed in claim  
10 7, wherein said reproducer reproduces a servo control signal serving as a reference when digital information for three-dimensional display is reproduced out of said information-recording medium.

9. The information-reproducing apparatus as claimed in claim  
15 8, wherein said reproducer comprises judgement apparatus for detecting a waveform duty of the servo control signal reproduced by said reproduce, thereby judging a recording format of said digital information.

10. The information-reproducing apparatus as claimed in claim  
20 8, wherein said apparatus further comprises a controller for detecting a waveform duty of said servo control signal and controlling said reproducer to reproduce the digital information on right frame or the digital information on left frame based on the waveform duty.

25 11. The information-reproducing apparatus as claimed in claim  
10, wherein said controller executes dynamic tracking control for said reproducer to reproduce said digital information from said information-recording medium on a discrete one frame by frame basis.

12. An information-reproducing method for reproducing from an information recording medium, digital information on left and right frames for three-dimensional display, the digital information being  
5 acquired by shooting an object from the left and right at the same time, said method comprising the step of:

reproducing digital information on left and right frames for three-dimensional display by reading the digital information on the left and right frames alternately out of said information recording  
10 medium at a speed which is "n" times as high as a speed of reproducing digital information on one frame for normal display in units of an error correction configuration and an information recording format, which correspond to the digital information on one frame for the normal display.

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13. The information-reproducing method as claimed in claim 12, wherein a servo control signal is reproduced serving as a reference when digital information for three-dimensional display is reproduced, from said information-recording medium.

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14. The information-reproducing method as claimed in claim 13, wherein a waveform duty of said reproduced servo control signal is detected to judge a recording format of said digital information.

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15. The information-reproducing method as claimed in claim 13, wherein a waveform duty of said servo control signal is detected, and the digital information on right frame or the digital information on left frame is reproduced based on the waveform duty.

16. The information-reproducing method as claimed in claim  
13, wherein dynamic tracking control is executed to reproduce said  
digital information from said information-recording medium on a discrete  
5 one frame by frame basis.

17. An information-recording medium having recorded therein  
digital information on left and right frames for three-dimensional  
display, the digital information being acquired by shooting an object  
10 from the left and right at the same time, wherein said digital information  
for three-dimensional display is recorded with said digital information  
being alternately arranged in the left and right frames at a speed  
which is "n" times as high as a speed of recording digital information  
on one frame for normal display in units of an error correction  
15 configuration and an information recording format, which correspond  
to the digital information on one frame for the normal display.